Henning Lohse-Busch

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Education

Master of Science, Mechanical Engineering, accepted in PhD program, Summer 2003
Virginia Polytechnic Institute and State University, (Virginia Tech), Blacksburg, VA, USA
"Thermal overload capability of an electric motor and inverter units through modeling" GPA: 3.85/4.0

Bachelor of Science, Mechanical Engineering, Virginia Tech, 2001, GPA 3.83/4.0, "*Summa cum Laude*"

- Fall 1999, Virginia Polytechnic Institute and State University, Blacksburg, VA, USA
- Spring 1998, Euro-American Institute of Technology, Sophia Antipolis, France
- Fall 1997, Clarkson University, Potsdam, NY, USA

Baccalauréat Scientifique, spécialité Mathématique, option Informatique, Summer 1997, Munster, France

Engineering Experience

Engineer Assistant, Basic research on shockwave medical machinery, Storz Medical, Kreuzlingen, Switzerland, Summer 1998, 4 weeks

Hybrid Electric Vehicle Team of Virginia Tech, HEVT, www.hevt.me.vt.edu, www.futuretruck.org,

- FutureTruck 2001, Fuel Cell Hybrid Vehicle Control group leader, Senior Design
- FutureTruck 2002, Fuel Cell Hybrid Team leader assistant, Volunteer
- FutureTruck 2003, H_2ICE Hybrid Team leader, Volunteer
- FutureTruck 2004, H_2ICE Hybrid Team leader, Graduate Teaching Assistant

Graduate Research Assistant for Dr. D.J. Nelson, Virginia Tech

- Fall 2001 Fuel Cell modeling funded by National Renewable Energy Laboratory (NREL)
- Fall 2002 Cooling of power electronics funded by Virginia Power Technologies (VPT)

Graduate Teaching Assistant for Dr. D.J. Nelson ,Virginia Tech

- Fall 2003 ME 4015: Engineering Design and Projects (Fall 2003)

Research Engineer, Argonne National Laboratory

- Center for Transportation Research, Vehicle Systems and Fuels, Energy Systems Division,

Languages

German: first native language; **French:** second native language; **English:** fluently spoken and written

Activities

Society of Automotive Engineers (SAE), Secretary 2002/03
National Mechanical Engineering Honor Society (Pi Tau Sigma), Vice President 2001/02
American Society of Mechanical Engineers (ASME), Professional Development Chair 2000/01
Student Engineering Council (SEC), National Engineering Honor Society (Tau Beta Pi)
Honor Society for International Scholars (Phi Beta Delta)

Awards

- **College of Engineering, Deans List,** Fall 1999, Spring 2000 and Fall 2000
- **IR Student Award,** Mechanical Engineering, 2001
- **Pratt Fellowship,** Mechanical Engineering, 2001-2002

Skills

Computer Skills: Microsoft Office XP Pro (Word, Excel, PowerPoint, FrontPage, Access), AutoCAD.
Programming languages: C++, Fortran, Matlab (inc Simulink) 6.5, LabVIEW 7, HTML and Java
Leadership Skills: Extensive leadership experience with student organizations and class projects; Participated in several leadership conferences (SEC Virginia Tech, RSLS ASME, FutureTruck among others)

Publications

H Lohse-Busch, S Boyd, (2004), "Magellan: Design and Results of a Hydrogen Powered Hybrid Electric Vehicle", SAE World Congress 2004, Technical session: Developing New Technologies Through Student Design Competitions (session code P20)

H Lohse-Busch, T Stinchfield, M Mital, A Hines, DJ Nelson, (2003), "Design and implementation of a hybrid electric vehicle powered by a hydrogen engine," Proceedings of the 2003 FutureTruck Challenge, June 1-12, 2003, Ford Romeo Proving Grounds, MI, SAE paper pending, 18 p

S Gurski, H Lohse-Busch, G Henshaw, DJ Nelson, (2002), "Design of a zero emission sport utility vehicle," Proceedings of the 2002 FutureTruck Challenge, June 11-21, 2002, Ford Arizona Proving Grounds, AZ, SAE paper 2000-01-1264, 17 p

S Gurski, D Evans, D Knox, M Conover, A Harris, H Lohse-Busch, S Kraft, DJ Nelson, (2002), "Design and Development of the 2001 Virginia Tech FutureTruck: A Fuel Cell Hybrid Electric Vehicle," Proceedings of the 2001 FutureTruck Challenge, June 4-13, 2001, Ford Milford Proving Grounds, MI, SAE paper SP-1701, 18 p